



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200

DALLAS, TX 75202-2733

JUL 01 2010

Mr. Fred Anthamatten
Chief, Regulatory Branch, CESWG-PE-R
U.S. Army Corps of Engineers
P.O. Box 1229
Galveston, Texas 77553-1229

Dear Mr. Anthamatten:

The Environmental Protection Agency (EPA) has reviewed the Public Notice (PN), dated June 1, 2010, concerning Permit Application SWG-2007-00084, submitted by Henry R. Stevenson, Jr. The project purpose is to gain access to a 42-acre undeveloped island by construction of a 720-foot-long by 80-foot-wide road berm. The project area is on the Neches River and Baird's Bayou in Orange County, Texas. The project, as currently proposed, will directly fill 1.01 acres of waters of the U.S. The comments that follow are being provided for use in reaching a decision relative to compliance with the EPA's *404(b)(1) Guidelines for Specifications of Disposal Sites for Dredged or Fill Material (40 CFR Part 230)* (Guidelines).

According to the Public Notice (PN), the project would result in filling 0.71 acre of jurisdictional open water and 0.30 acre of jurisdictional wetlands. The applicant plans to mitigate for the adverse impacts of the proposed project by placing 1.01 acres of forested wetlands under a conservation easement held by the Sabine Neches Conservation, Inc. The mitigation site is located 2,200 feet west of the Neches River salt-water barrier and located downstream of the project site.

According to the U.S. Fish and Wildlife Service (FWS) National Wetlands Inventory, the wetlands and other aquatic resources in and adjacent to the project area include a freshwater forested/shrub wetland, the Neches River, and Baird's Bayou. A site visit was conducted on June 16, 2010, by the Texas Parks and Wildlife Department (TPWD), U.S. Army Corps of Engineers (COE), and the applicant. The habitat that TPWD described is a mature bald cypress forest that contains many mature cypress trees, some up to 150 to 200 years old.

The applicant wishes to access an island, surrounded by an oxbow lake and Baird's Bayou, which connects on both openings of the oxbow to the Neches River. The functions of streams and/or other waterways within an ecosystem include transporting water, sediment, and nutrients from upstream to downstream; supporting aquatic and riparian habitat; and providing a corridor for movement of both aquatic and terrestrial species within the watershed. The existing vegetation also stabilizes the stream banks, both through its root structure and by acting to slow down the flow of water along the bank and reduce erosion.

Mature bald cypress forest wetlands are located on the island and the surrounding area are of high quality and are important in the functions of providing habitat, nutrient cycling, erosion control, nutrient storage, water filtration, and water storage. The wetland vegetation also helps to shade streams, keep the water temperature cool, and also provides habitat for birds and terrestrial wildlife. In addition to the functions of living vegetation, leaves and other vegetative debris that fall into the stream are an important element of the aquatic food web. The functions of the waterways and the wetlands are necessary for the survival of the aquatic and terrestrial organisms and supports biodiversity in the ecosystem.

The purpose of the Guidelines is to restore and maintain the chemical, physical, and biological integrity of waters of the United States. These goals are achieved, in part, by prohibiting discharges of dredged or fill material into the aquatic ecosystem that would result in avoidable or significant adverse impacts on the aquatic environment unless it can be demonstrated that there is no less environmentally damaging practicable alternative (LEDPA) that achieves the project purpose [40 CFR 230.10(a)]. The applicant bears the burden for demonstrating that the proposed project is LEDPA that achieves the project purpose. The determination of LEDPA is achieved by performing an Alternatives Analysis that evaluates the direct, secondary, and cumulative impacts to waters of the U.S. resulting from each alternative considered.

The creation of a permanent berm with the use of concrete and other hard material to block the water circulation pattern may alter and/or eliminate stream functions. Indirect and cumulative impacts to the Baird's Bayou may result from the proposed project, such as a decrease in the dissolved oxygen (DO) concentration, creation of a permanent impediment to the movement of aquatic and terrestrial organisms, and may also adversely affect the surrounding cypress wetlands. The low DO levels may lead to an increase in aquatic organism kills, especially in summer when the increase in temperature naturally may decrease the water DO concentration. The berm impediment to water circulation may also cause high nutrient load within the oxbow and result in adverse effects to the aquatic life and the surrounding wetlands.

Identification of the Least Environmentally Damaging Practicable Alternative (LEDPA) is achieved by performing an alternatives analysis that estimates the direct, secondary, and cumulative impacts to jurisdictional waters resulting from each alternative considered. Project alternatives that are not practicable and do not meet the project purpose are eliminated. The LEDPA is the remaining alternative with the fewest impacts to aquatic resources, so long as it does not have other significant adverse environmental consequences. The applicant's preferred alternative, to access an island by the creation of a road berm, is the most environmentally damaging of the alternative analyses listed in the PN and may cause or contribute to significant degradation of Baird's Bayou and the surrounding wetlands.

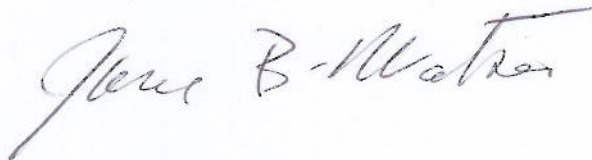
According to the alternatives analysis, a denial of the permit would result in a financial loss and render the applicant unable to recover the cost resulting from the engineering and consulting fees as well as the continuing erosion leading to navigation hazards, and is therefore not accepted by the applicant. Another alternative proposed was the construction of a bridge to access the island, but was determined to be cost prohibitive. The alternative of a bridge would allow for the open flow and interchange between Baird's Bayou and the Neches River. Another

alternative put forward was to use a barge for connection to the island, though a mechanically driven barge may induce or increase erosion of the bank. CWA Section 230.10(a) prohibits a discharge if there is a less environmentally damaging practicable alternative (LEDPA) to the proposed project, and Section 230.10(d) prohibits discharges unless all appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem. The applicant's preferred alternative for the creation of a road berm may have environmental impacts that are identified above and does not meet LEDPA and uses more discharge material into waters of the U.S. than is needed for the LEDPA alternative.

Under Part IV.3(a) of the 1992 404(q) Memorandum of Agreement (MOA), it is the opinion of EPA that the project may result in substantial and unacceptable impacts to aquatic resources of national importance. Therefore, we recommend that the permit not be issued.

Thank you for the opportunity to comment on this public notice. If you have any questions regarding these comments, please contact Jenelle Hill of my staff at 214-665-9737.

Sincerely,

A handwritten signature in cursive script, reading "Jane B. Watson".

Jane B. Watson, Ph.D.
Associate Director
Ecosystems Protection Branch

cc: U.S. Fish and Wildlife Service, Houston, TX
Texas Commission on Environmental Quality, Austin, TX
Texas Parks & Wildlife Department, Dickinson, TX